

## AMENDMENTS TO THE CLAIMS

### IN THE CLAIMS:

Presented below is the entire set of currently-pending claims, reflecting amendments to Claims 1, 5, 9 through 13, 15 through 17, and 20 through 23, and the cancellation of Claims 4 and 19.

1. (Currently amended) A method comprising:

acquiring first ~~data representing a three-dimensional surface~~ data representing at least a portion of a patient's body while the patient is in a first position substantially maintained during a computed tomography scan; ~~and~~

acquiring second data representing at least one internal three-dimensional portion of the patient's body while the patient is in the first position; and

acquiring third three-dimensional surface data representing at least the portion of the patient's body while the patient is in a second position substantially maintained in preparation for radiation treatment.

2. (Original) A method according to Claim 1, further comprising:

determining a radiation treatment plan based on the first data, the second data, and on data representing a physical layout of a radiation treatment station.

3. (Original) A method according to Claim 2, wherein the step of determining the radiation treatment plan comprises:

determining a position of a radiation treatment device that will avoid the patient's body and that will allow irradiation of a portion of the at least one internal portion.

4. (Cancelled)

5. (Currently amended) A method according to Claim 14, further comprising:

determining, based on the first data and the third data, that the second position does not correspond to the first position.

6. (Original) A method according to Claim 5, further comprising:  
instructing the patient to move so that the second position corresponds to the first position.
7. (Original) A method according to Claim 5, further comprising:  
changing a radiation treatment plan for the patient based on a difference between the first position and the second position.
8. (Original) A method according to Claim 1, further comprising:  
determining, based on the first data and the third data, that the patient represented by the first data is different from the patient represented by the third data.
9. (Currently amended) A method according to Claim 4~~1~~, further comprising:  
determining, based on the first data and the third data, that the patient's body has changed by greater than a threshold amount; and  
in response to the determination that the patient's body has changed by greater than the threshold amount, acquiring fourth ~~data representing a three-dimensional surface data~~ data representing of at least ~~a the~~ portion of the patient's body while the patient is in a third position substantially maintained during a second computed tomography scan.
10. (Currently amended) A method according to Claim 1, further comprising:  
acquiring ~~third data representing a fourth~~ three-dimensional surface data representing of at least ~~the~~ portion of the patient's body while the patient is in a ~~second-third~~ position; and  
activating a radiation beam according to a radiation treatment plan if it is determined based on the ~~third-fourth~~ data that the ~~second-third~~ position corresponds to a point in a cycle of body motion specified by the treatment plan.
11. (Currently amended) A method according to Claim 10, further comprising:  
acquiring ~~fourth-fifth data representing a three-dimensional surface data representing~~ of at least ~~a the~~ portion of the patient's body while the patient is in a ~~third-fourth~~ position; and

deactivating the radiation beam according to a radiation treatment plan if it is determined based on the ~~fourth~~ fifth data that the ~~third~~ fourth position does not correspond to the point specified by the treatment plan.

12. (Currently amended) A method comprising:  
acquiring computed tomography data of a patient while the patient remains substantially in a first position;  
acquiring first three-dimensional ~~data representing a surface~~ data of the patient while the patient remains substantially in the first position;  
determining a radiation treatment plan based on the computed tomography data, the three-dimensional data, and data representing a physical layout of a radiation treatment station;  
acquiring second three-dimensional ~~data representing a surface~~ data of the patient while the patient remains substantially in a second position at the radiation treatment station;  
determining if the second three-dimensional data corresponds to the first three-dimensional data; and  
delivering radiation to the patient according to the radiation treatment plan if it is determined that the second three-dimensional data corresponds to the first three-dimensional data.

13. (Currently amended) A system comprising:  
a computed tomography scanning device for acquiring computed tomography data of a patient while the patient is in a scanning position; ~~and~~  
a first surface photogrammetry device for acquiring first three-dimensional surface data of at least a portion of the patient's body while the patient is in the scanning position;  
a radiation treatment device for delivering radiation to the patient; and  
a second surface photogrammetry device for acquiring second three-dimensional surface data of at least the portion of the patient's body while the patient is in a treatment position on the radiation treatment device.

14. (Original) A system according to Claim 13, further comprising:

a treatment planning device for generating a radiation treatment plan based on the computed tomography data, the first three-dimensional surface data, and data representing a physical layout of a radiation treatment station.

15. (Currently amended) A system according to Claim 13, further comprising:  
~~a radiation treatment device for delivering radiation to the patient;~~  
~~— a second surface photogrammetry device for acquiring second three-dimensional surface data of at least a portion of the patient's body while the patient is in a treatment position on the radiation treatment device;~~  
~~— a controller for determining if the treatment position corresponds to the scanning position based on the first three-dimensional surface data and the second three-dimensional surface data.~~

16. (Currently amended) A system according to Claim ~~15~~13, wherein the first surface photogrammetry device and the second surface photogrammetry device are a same device.

17. (Currently amended) A medium storing controller-executable process steps, the process steps comprising:

a step to acquire first ~~data representing a three-dimensional surface of~~representing at least a portion of a patient's body while the patient is in a first positionsubstantially maintained during a computed tomography scan; ~~and~~

a step to acquire second data representing at least one internal three-dimensional portion of the patient's body while the patient is in the first position; and

a step to acquire third three-dimensional surface data representing at least the portion of the patient's body while the patient is in a second position substantially maintained in preparation for radiation treatment.

18. (Original) A medium according to Claim 17, the process steps further comprising:  
a step to determine a radiation treatment plan based on the first data, the second data, and data representing a physical layout of a radiation treatment station.

19. (Cancelled)

20. (Currently amended) A medium according to Claim 17, the process steps further comprising:

a step to determine, based on the first data and the third data, that the patient's body has changed by greater than a threshold amount; and

a step to acquire, in response to the determination that the patient's body has changed by greater than the threshold amount, fourth ~~data representing a three-dimensional surface of data~~ representing at least ~~a the~~ portion of the patient's body while the patient is in a third position substantially maintained during a second computed tomography scan.

21. (Currently amended) A medium according to Claim 17, the process steps further comprising:

a step to acquire ~~third data representing a fourth~~ fourth three-dimensional surface of ~~data~~ data ~~representing~~ at least ~~a the~~ portion of the patient's body while the patient is in a ~~second-third~~ position; and

a step to activate a radiation beam according to a radiation treatment plan if it is determined, based on the ~~third-fourth~~ data, that the ~~second-third~~ position corresponds to a position specified by the treatment plan.

22. (Currently amended) A medium according to Claim 17, the process steps further comprising:

a step to acquire ~~third data representing a fourth~~ fourth three-dimensional surface ~~data~~ data ~~representing~~ of at least ~~a the~~ portion of the patient's body while the patient is in a ~~second-third~~ position; and

a step to activate a radiation beam according to a radiation treatment plan if it is determined based on the ~~third-fourth~~ data that the ~~second-third~~ position corresponds to a point in a cycle of body motion specified by the treatment plan.

23. (Currently amended) A medium according to Claim 22, the process steps further comprising:

a step to acquire ~~fourth-fifth~~ data representing a three-dimensional surface data  
representing of at least a ~~the~~ portion of the patient's body while the patient is in a ~~third~~ fourth  
position; and

a step to deactivate the radiation beam according to a radiation treatment plan if it is  
determined based on the ~~fourth-fifth~~ data that the ~~third~~ fourth position does not correspond to the  
point specified by the treatment plan.

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